

Manufacturers Reference No. for Application

Sunalp II



F.I.A. Recognition No. 30

ROYAL AUTOMOBILE CLUB

PALL MALL, LONDON, S.W.1.

Federation Internationale de l'Automobile.

Form of Recognition in accordance with
Appendix J to the
International Sporting Code.

Manufacturer..... SUNBEAM TALBOT. RYTON-ON-DUNSMORE. COVENTRY.

Model..... SUNBEAM ALPINE II

Year of Manufacture..... 1960

Serial No. of Chassis..... B.900001. 9100001

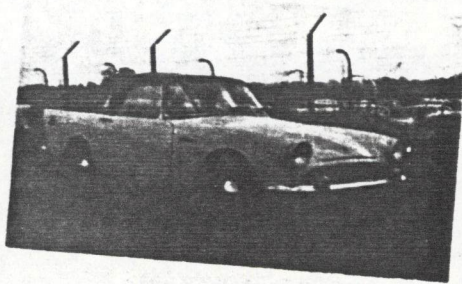
Engine..... B.900001. 9100001

Type of Coachwork..... Two seater sports with removable top.

Recognition is valid from..... 1st October, 1960

In category..... ^{GRAND} ~~Grand~~ Touring.

Photograph to be affixed here $\frac{3}{4}$ view of car from front right.



Stamp of F.I.A. to be
affixed here.

General description of car:

Two seater sports car with rear occasional seat.

Soft top hood. Hard top available as an extra.

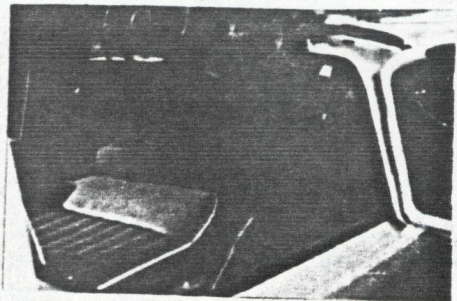
Two door.

Photographs to be affixed below.

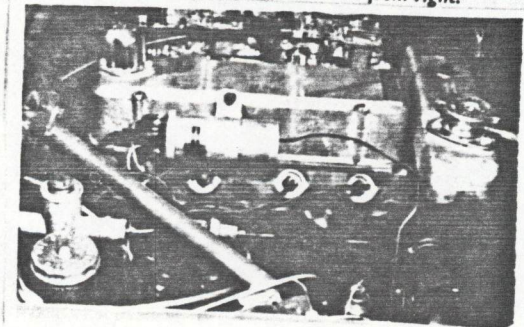
$\frac{3}{4}$ view of car from rear left.



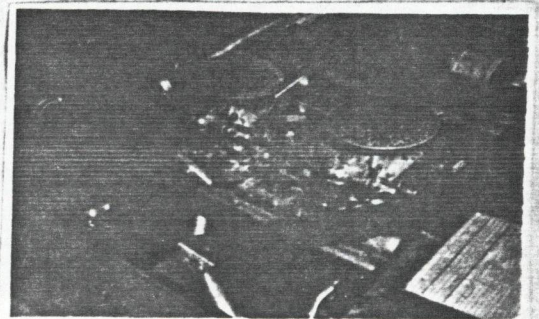
Interior view of car through driver's door.



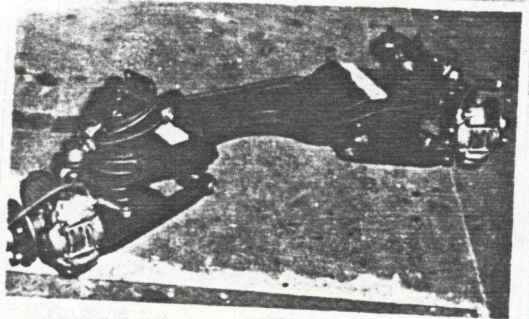
Engine unit with accessories from right.



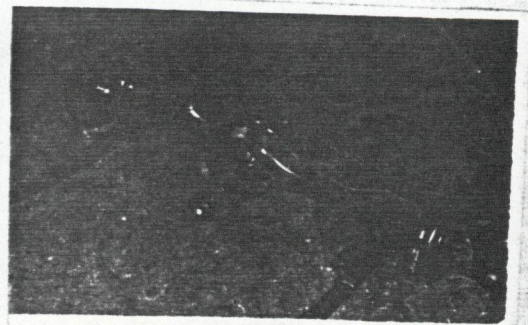
Engine unit with accessories from left.



Front axle complete (without wheels).



Rear axle complete (without wheels).



ENGINE

in line with \bar{L} of vehicle

No. of cylinders 4 ~~max~~ opposed

Cycle 4 stroke Firing order 1.3.4.2

Capacity 1592 c.c. Bore 81.5 m.m. Stroke 76.2 m.m.

Maximum rebore 82.50 m.m. Resultant capacity 1619.5 c.c.

Material of cylinder block C.I. Material of sleeves, if fitted None fitted.

Distance from crankshaft centre line to top face of block at centre line of cylinders 231.8 m.m.

Material of cylinder head Aluminium Volume of one combustion chamber 38 c.c.

Compression ratio 9.1:1

Material of piston Heplex No. of piston rings 3 per piston

Distance from gudgeon pin centre line to highest point of piston crown 47 m.m.

Bearings { Crankshaft main bearings: Type White metal Dia. 57.137/57.125 m.m.
 Connecting rod big end: Type Copper Lead Indium Dia. 50.813/50.825 m.m.

Weights { Flywheel 10.64 kg.
 Crankshaft 17.07 kg.
 Connecting rod .709 kg.
 Piston with rings .444 kg. Complete
 Gudgeon pin .137 kg.

No. of valves per cylinder 2 Method of valve operation Pushrod

No. of camshafts 1 Location of camshafts Cylinder block

Type of camshaft drive Chaindrive from crankshaft.

Diameter of valves: Inlet 36.77/36.37 m.m. Exhaust 29.87/29.77 m.m.

Diameter of port at valve seat: Inlet 33.3 m.m. Exhaust 26.9 m.m.

Tappet clearance for checking timing: Inlet .495 m.m. Exhaust .495 m.m. at valve

Valves open: Inlet 14° B.T.D.C. Exhaust 56° B.B.D.C.

Valves close: Inlet 52° A.B.D.C. Exhaust 10° A.T.D.C.

Maximum valve lift: Inlet 9.42 m.m. Exhaust 9.40 m.m.

Degrees of crankshaft rotation from zero to—
 Maximum lift: Inlet 148° Exhaust 144°
 $\frac{1}{2}$ Maximum lift: Inlet 96° Exhaust 92°

Valve springs: Inlet Helical coil Exhaust Helical coil
 Type Helical coil
 No. per valve 2 2

Carburettor: Type Down draught No. fitted 2
 (up or down draft, horizontal)

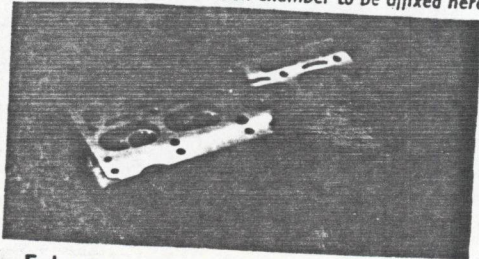
Make Zenith Model 36/WIP/2

Flange hole diameter 36 m.m. Choke diameter 30 m.m.

Main jet identification No. 142

Air filter: Type Wire mesh No. fitted 2
 Inlet manifold:
 Diameter of flange hole at carburettor 50.04 m.m.
 Diameter of flange hole at port 50.8 m.m.

Photograph of combustion chamber to be affixed here.

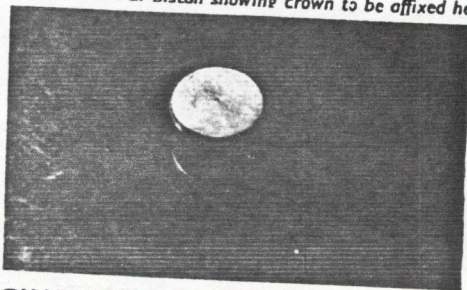


Photograph of inlet manifold to be affixed here.

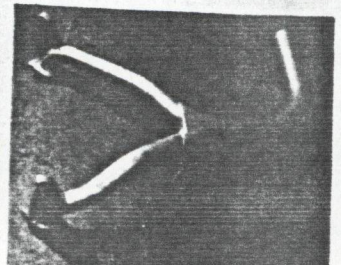
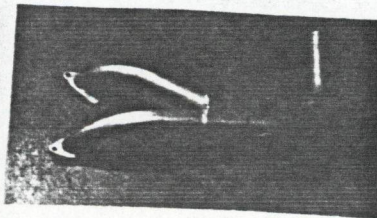


Exhaust manifold:
 Diameter of flange hole at port 48.26 m.m.
 Diameter of flange hole at connection to silencer inlet pipe No flange, clip only m.m.

Photograph of piston showing crown to be affixed here.



Photograph of exhaust manifold to be affixed here.



ENGINE ACCESSORIES

Make of fuel pump A.C. No. fitted 1
 Method of operation Camshaft on relay arm
 Type of ignition system Coil and distributor coil or magneto
 Make of ignition Lucas Model Distributor DM 2 PA
 Method of advance and retard Centrifugal and vacuum
 Make of ignition coil Lucas Model H.A.12
 No. of ignition coils One Voltage 12v
 Make of dynamo Lucas Model C.40
 Voltage of dynamo 12v Maximum output 22 amps.
 Make of starter motor Lucas Model M.35.G
 Battery: No. fitted One Voltage 12 Capacity 38-44-51 amp. hour

P.44447

Make Sunbeam Model Alpine II F.I.A. Recognition No.

Manufacturers Reference No. of Application SUNALP II

TRANSMISSION

Make of clutch Borg & Beck Type Dry
 Diameter of clutch plate 8.0" dia. No. of plates One
 Method of operating clutch Mechanical through hydraulic slave cylinder.
 Make of gearbox Humber Type Constant mesh
 No. of gearbox ratios 4 forward.1 reverse or 6 forward.1 reverse with O/D
 Method of operating gearshift Remote control - manual
 Location of gearshift Centre of floor
 Is overdrive fitted? Optional
 Method of controlling overdrive, if fitted Electrical solenoid on steering column.

	GEARBOX RATIOS		ALTERNATIVE RATIOS					
	Ratio	No. of Teeth	Ratio	No. of Teeth	Ratio	No. of Teeth	Ratio	No. of Teeth
1.	3.346	$\frac{29 \times 30}{20 \times 13}$			3.32	$\frac{21 \times 31}{27 \times 12}$	2.97	$\frac{21 \times 30}{27 \times 13}$
2.	2.141	$\frac{29 \times 31}{20 \times 21}$						
3.	1.392	$\frac{29 \times 24}{20 \times 25}$			1.9	$\frac{21 \times 31}{27 \times 21}$	1.9	$\frac{21 \times 31}{27 \times 21}$
4.	1.000	Direct			1.24	$\frac{21 \times 24}{27 \times 25}$	1.24	$\frac{21 \times 24}{27 \times 25}$
³⁵ Rev.	4.239	$\frac{29 \times 30 \times 19}{20 \times 13 \times 15}$						

Type of final drive Hypoid bevel crown wheel and pinion
 Type of differential Normal, full slip, spider and sun wheel
 Final drive ratio 3.8889 Alternatives 4.2222
 No. of teeth 35/9 38/9
 Overdrive ratio, if fitted .803:1 (24.6%)

WHEELS

Type Steel dish or wire Weight 13.15 kg.
 Method of attachment 4 studs or centre lock
 Rim diameter 330 m.m. Rim width 101.6 m.m.
 Tyre size: Front 5.60 x 13 Rear 5.60 x 13 or 5.90 x 13

BRAKES

Method of operation Hydraulic
 Is servo assistance fitted? No
 Type of servo, if fitted -
 No. of hydraulic master cylinders One Bore 17.8 m.m.

	Front		Rear	
No. of wheel cylinders	2		1	
Bore of wheel cylinders	54	m.m.	22.2	m.m.
Inside diameter of brake drums	-	m.m.	228.6	m.m.
No. of shoes per brake	-		2	
Outside diameter of brake discs	241.3	m.m.	-	m.m.
No. of pads per brake	2		-	

Dimensions of brake linings per shoe or pad (if all shoes or pads in each brake are not of same dimensions, specify each)

	Front		Rear	
Length	32	c.m. 3 m.m.	40.97	c.m. 3 m.m.
Width	54	m.m.	44.5	m.m.
Total area per brake	6645	m.m. ²	19484	m.m. ²

SUSPENSION

	Front	Rear
Type	Trailing wishbone	Beam axle
Type of spring	Coil spring	Semi-elliptical
Is stabiliser fitted?	Anti roll bar	
Type of shock absorber	Armstrong AT 7	Armstrong DAS 8 RXPF
No. of shock absorbers	2	2

STEERING

Type of steering gear	Burman recirculating ball
Turning circle of car	16.06 m., approx.
No. of turns of steering wheel from lock to lock	3

CAPACITIES AND DIMENSIONS

Fuel tank	40.9	litres	Sump	4.5	litres
Engine & Radiator	7.95 or 8.53	with heater litres			
Overall length of car	395	cm.	Overall width of car	153.5	cm.
Overall height of car, unladen (with hood up, if appropriate)	131	cm.	Hard & Soft top		
Distance from floor to top of windscreen:					
Highest point	92.7	cm.	Lowest point	89	cm.
Width of windscreen:					
Maximum width	122	cm.	Minimum width	104	cm.
*Interior width of car	128	cm.			
No. of seats	2				
Track: Front	129.5	cm.	Rear	124	cm.
Wheelbase	218	cm.	Ground clearance	105	m.m.

*(To be measured at the immediate rear of the steering wheel, and the width quoted to be maintained in a vertical plane of not less than 25 cms.)

Overall weight with water, oil and spare wheel, but without fuel	954	kgs.	Standard
	6		With Overdrive
			Hardtop

Additional information for cars fitted with two-cycle engines

System of cylinder scavenging.....

Type of lubrication.....

Size of inlet port:

Length measured around cylinder wall.....m.m.

Height.....m.m. Area.....m.m.²

Size of exhaust port:

Length measured around cylinder wall.....m.m.

Height.....m.m. Area.....m.m.²

Size of transfer port:

Length measured around cylinder wall.....m.m.

Height.....m.m. Area.....m.m.²

Size of piston port:

Length measured around piston.....m.m.

Height.....m.m. Area.....m.m.²

Method of pre-compression.....

Bore and stroke of pre-compression cylinder, if fitted.....m.m.

Distance from top of cylinder block to lowest point of inlet port.....m.m.

Distance from top of cylinder block to highest point of exhaust port.....m.m.

Distance from top of cylinder block to highest point of transfer port.....m.m.

Drawing of cylinder ports.

Supercharger, if fitted

Make..... Model or Type No.....

Type of drive..... Ratio of drive.....

Fuel injection, if fitted

Make of pump..... Model or Type No.....

Make of injectors..... Model or Type No.....

Location of injectors.....